

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

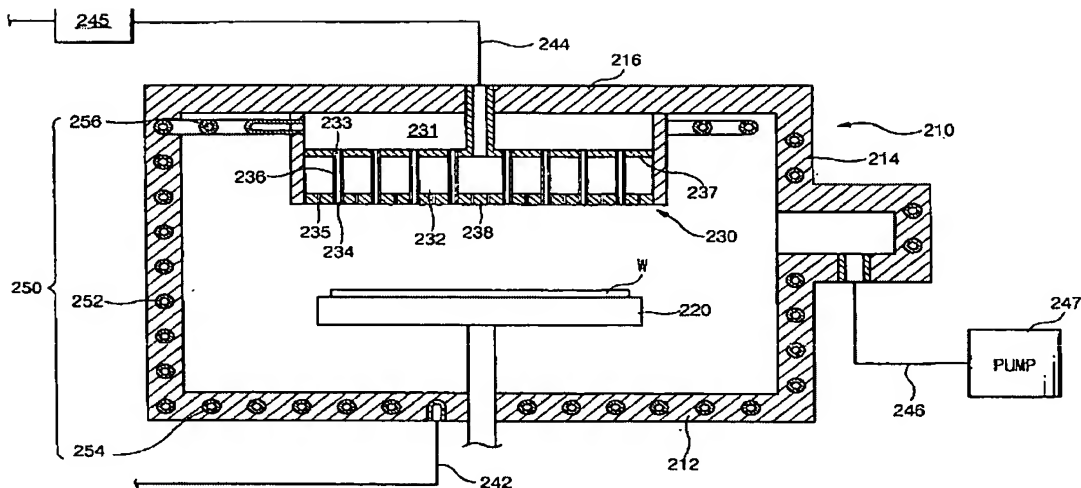
Claims 1, 3-13 and 15-17 are pending in this application. No claims have been amended, added or cancelled. Claim 1 is the sole independent claim.

Furthermore, upon review of the enclosed Amendment, Applicants respectfully request that the Examiner contact the undersigned to discuss the Applicants' reasoning and/or possible claim amendments that may place the application in condition for allowance.

Example Embodiments of the Present Application

Independent claim 1 recites “a heating pipe for heating the first source gas, wherein the heating pipe has one end connected with the first supply pipe, the other end connected with the shower part, the heating pipe surrounding the susceptor”. Example non-limiting embodiments of these features are discussed, for example, in paragraphs [0035], [0042] and [0049] and FIG. 2 of the instant specification.

In example embodiments of the present application, for example, FIG. 2 (see below), the heating pipe 250 **surrounds** the susceptor 220. The coil-shaped first heat part 252 is **inside** an outer wall of the process chamber 210. Accordingly, the size of the apparatus may be decreased. The heating pipe 250 has a first heat part 252, second heat part 254 and a third heat part 256, and the third heat part 256 extends from the first heat part 252 and surrounds a circumference of the shower part 230 in a coiled shape.

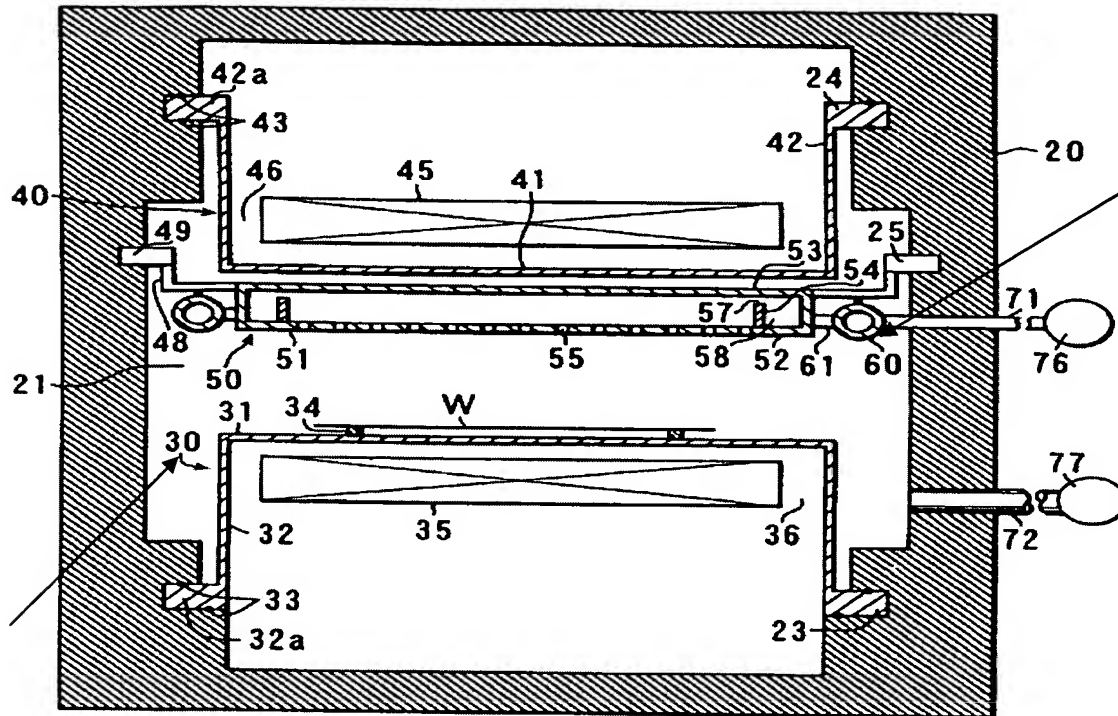


Rejections under 35 U.S.C. § 102

Claims 1 and 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kitamura (U.S. Patent No. 6,007,633). Applicants respectfully traverse this rejection for the reasons detailed below.

On page 6 of the Office Action, in the Response to Arguments section, the Examiner alleges that the term surrounds is broad and includes the idea of encircling and does not require that the outer tube be in the same plane as the susceptor. Even if the Examiner were correct (which we do not believe), FIG. 1 of Kitamura illustrates that the heating pipe 60 is above the susceptor 30 and does not even encircle the susceptor.

Webster's Dictionary defines encircle as "to form a circle around, surround; to pass completely around". As illustrated in FIG. 1 of Kitamura below, the heating pipe 60 does not surround or encircle the susceptor 30 as the heating pipe surrounds the susceptor in independent claim 1, but rather sits above the upper surface of the susceptor 30.



Therefore, Kitamura fails to teach or suggest a “heating pipe surrounding the susceptor” as disclosed in independent claim 1.

The Applicants, therefore, respectfully request that the rejection to Claim 1 under 35 U.S.C. § 102(b) be withdrawn.

Claim 16, dependent on independent claim 1, is patentable for the reasons stated above with respect to claim 1 as well as for their own merits.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection to independent claim 1 and all claims dependent thereon.

Rejections under 35 U.S.C. § 103

Claims 3-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura in view of Sakamoto et al. (U.S. Patent No. 5,968,593). Applicants respectfully traverse for the reasons detailed below.

With respect to claims 3-7 and 9-11, Applicants incorporate the discussion presented above with respect to the deficiencies of Kitamura to teach or suggest the apparatus for fabricating a semiconductor device as recited in claim 1. As claims 3-7 and 9-11 depend from claim 1, Applicants submit that 3-7 and 9-11 are equally allowable over the applied references.

With respect to the proposed combination of Kitamura and Sakamoto, Applicants respectfully submit that the combination is improper for at least the following reasons.

Kitamura is directed to a single substrate-processing apparatus in a semiconductor processing system, having a process gas supply means with a simple structure suitable for the double side heating type, uniformly supplying a process gas, whereas the teachings of Sakamoto describe a semiconductor manufacturing apparatus capable of providing an improved uniform temperature distribution over the surface of a wafer and an apparatus for processing simultaneously a plurality of wafers. Accordingly, Applicants respectfully submit there is insufficient evidence in the record for modifying the apparatus of Kitamura to incorporate the gas feed pipe of Sakamoto.

Further, Applicants respectfully submit that an attempt to bring in the isolated teachings of the gas feed pipe of Sakamoto into the apparatus of Kitamura would amount to improperly picking and choosing from the different references without regard for the teachings of the references as a whole.¹

¹ See In re Ehrreich 590 F2d 902, 200 USPQ 504 (CCPA, 1979) (stating that patentability must be addressed "in terms of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of first one and then another of the isolated teachings in the art," and that one "must consider the entirety of the disclosure made by the references, and avoid combining them indiscriminately.")

The Applicants maintain, therefore, that the Action does not present the required “convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references,” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), and that this rejection may not be properly maintained absent such reasoning.

The Applicants, therefore, respectfully request that the rejection to Claims 3-7 and 9-11 under 35 U.S.C. § 103(a) be withdrawn.

With regard to claim 4, the outer tube 60 of Kitamura is disposed in the container 20 and the gas feed pipe 312 of Sakamoto is disposed outside an outer wall of the reaction tube body 10. With regard to claim 9, the outer tube 60 of Kitamura is a component corresponding to the third heat part as recited in claim 9. Therefore, Kitamura does not disclose a component corresponding to the first heat part as recited in claim 9.

The Applicants, therefore, respectfully request that the rejection to Claims 4 and 9 under 35 U.S.C. § 103(a) be withdrawn for these additional reasons.

CONCLUSION

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

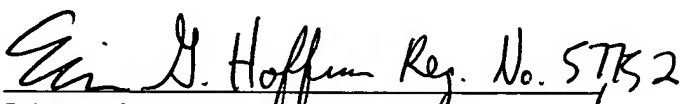
As discussed above, Applicants respectfully request that the Examiner contact the undersigned to discuss the Applicants' reasoning and/or possible claim amendments that may place the application in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Erin G. Hoffman, Reg. No. 57,752, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKY, & PIERCE, P.L.C.

By  Erin G. Hoffman Reg. No. 57,752
for John A. Castellano, Reg. No. 35,094
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

JAC/EGH:ald